

PUBLIC VERSION

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

HEADWATER RESEARCH LLC

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD and
SAMSUNG ELECTRONICS AMERICA, INC.,

Defendants.

Case No. 2:22-CV-00422-JRG-RSP

**SAMSUNG'S SUPPLEMENTAL BRIEF
IN SUPPORT OF ITS MOTION TO STRIKE CERTAIN
OPINIONS OFFERED BY DR. RICHARD D. WESEL (DKT. 165)**

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EXHIBIT INDEX & NOTES

Exhibit	Description
1	Excerpts from the Expert Report of Dr. Richard D. Wesel, dated March 29, 2024
2	Excerpts from the Deposition of Dr. Richard D. Wesel, taken April 30, 2024
3	Excerpts from the Deposition of Dr. Richard D. Wesel, taken May 1, 2024
4	Galaxy S5 16GB - Black - Unlocked _ Back Market - Battery Capacity
5	Galaxy S5 16GB - Black - Unlocked _ Back Market
6	Exhibit C (Materials Considered) from the Expert Report of Dr. Richard D. Wesel, dated March 29, 2024

* Emphasis added unless otherwise noted.

** Form objections are omitted from deposition transcript quotations unless otherwise noted.

*** In this brief, “Headwater” refers to Plaintiff and its purported predecessors.

**** In this brief, [REDACTED]

I. INTRODUCTION

Defendants Samsung Electronics Co., Ltd. (“SEC”) and Samsung Electronics America, Inc. (“SEA”) respectfully move the Court to strike certain “battery testing” opinions offered in the Report of Plaintiff Headwater Research, LLC’s infringement expert, Dr. Richard D. Wesel.¹

Dr. Wesel’s alleged “battery testing,” Ex. 1, ¶¶ 2362-81, which was performed—mostly by an unknown “consultant,” likely one of Headwater’s counsel at Russ August & Kabat²—“[t]o quantify the battery savings benefits from the patented technologies,” is inherently unreliable and should be stricken. *Id.*, ¶ 2362. Before this case, Dr. Wesel had never “performed battery testing on mobile phones,” had never “done any testing on Android devices,” had never “done any testing on any smartphones,” and had never used any battery testing software. Ex. 2 at 38:1-14, 38:25-39:5. As such, Dr. Wesel was not qualified to offer the battery testing opinions in his Report.

Even if he were, Dr. Wesel barely participated in the actual testing on which he opined. The vast majority of Dr. Wesel’s “testing” was performed by an unknown “consultant,” who had no previous battery testing experience, whom Dr. Wesel did not hire, whose qualifications Dr. Wesel did not know, and whose work Dr. Wesel did not oversee. *Id.*, 50:21-51:23, 88:21-89:6, 89:13-90:1. Dr. Wesel was also not involved in setting up the test environment, purchasing the tested phones, *id.*, 40:19-41:2, 52:1-13, 55:1-3, creating “the Google account for the device,” “download[ing] the applications onto the device,” or enabling the “cellular plan from AT&T” for the tested devices, *id.*, 48:1-25. He was no more than a passive observer to his own alleged “tests.”

Exacerbating the inherently unreliable nature of Dr. Wesel’s testing, the same unnamed

¹ Samsung filed a motion for leave (Dkt. 231) and a motion to strike Dr. Wesel’s battery testing opinions (Dkt. 234) on May 10, 2024. However, pursuant to this Court’s Order (Dkt. 292) Samsung files this 10-page “brief in support of the motion already filed at Dkt. No. 165.”

² Notably, in its opposition to Samsung’s motion for leave, Headwater did not identify the unnamed “consultant” or dispute that this so-called “consultant” is one of its own attorneys. Dkt. 249.

“consultant”—who is not an expert, has not submitted a report in this litigation, and has not been identified or made available by Headwater for deposition—then compiled all of the test results, only “a few” of which Dr. Wesel even bothered to check. Ex. 3 at 286:18-287:12. And, at deposition, Dr. Wesel could not recall which results he checked, could not find the answer in his Report, nor (unsurprisingly) could he demonstrate his ability to check the data. *Id.*, 286:18-288:11. Headwater’s attempt to launder this “consultant’s” findings through Dr. Wesel should be rejected.

Dr. Wesel lacked the requisite scientific, technical, or other specialized knowledge to qualify him to perform these battery tests (which is perhaps why he did not conduct most of the testing himself), and his testing methodology was severely flawed. Accordingly, the Court should strike Dr. Wesel’s opinions concerning his alleged “battery testing.”

A. Dr. Wesel's Alleged "Battery Test" Opinions Are Inherently Unreliable

prepared and lawyer-orchestrated ‘facts’ to a hired expert who then ‘relies’ on the information to express an opinion.” *Therasense, Inc. v. Becton, Dickinson & Co.*, 2008 WL 2323856, at *1 (N.D. Cal. May 22, 2008). That is precisely what occurred here. Dr. Wesel’s only apparent role in his alleged “battery testing” was plugging a phone into a computer and entering “commands” he was given by others into battery testing software that he had never previously used nor heard of. Ex. 2 at 38:19-39:2, 49:6-12. He did so for only two of the eight test runs described in his Report (the remaining six of which he did not even oversee), and all results from his testing were compiled by an individual he could not name, who lacked experience performing such testing, and who was not identified in his Report or Materials Considered. *See* Ex. 1; Ex. 6 (Materials Considered). Given his lack of experience, and complete unawareness about the individual who ran the majority of his “testing,” and who was likely just one of Headwater’s counsel at Russ August & Kabat, Dr. Wesel’s testing methodology is—not surprisingly—unreliable. *Therasense*, 2008 WL 2323856, *2 (“[N]o professional should reasonably rely on such a rigged and biased source of information for any materially important fact to his or her opinion. . . [A]ny opinion based on such untested and partisan foundation is not based on sufficient facts and data within the meaning of Rule 702.”).

1. Dr. Wesel Did Not Have Any Experience Running Battery Tests or With the Testing Software, and Was Largely Uninvolved in the Tests

Dr. Wesel lacks the requisite scientific, technical, or other specialized knowledge and qualifications necessary to offer “expert” battery testing opinions. Indeed, “before this case,” he had never “performed battery testing on mobile phones,” and had never “done any testing on Android devices” or “any [other] smartphones” for that matter:

Q. . . . Before this case, had you ever performed battery life testing on mobile phones?

A. No, *before this case*, I had not performed battery testing on mobile phones.

Q. Before this case, had you ever done any testing on Android devices?

not state what academic degree the “consultant” had, *id.*, 88:21-89:1, and testified that this was also the first time the “consultant,” who is clearly not an expert, had ever performed such a test:

Q. How many – how many tests had this consultant done in the past on Android devices testing for battery drain?

A. *I believe this is the first time that they tested the – that he tested battery drain.*

Id., 89:2-6. Second, compounding the lack of evidence that the “consultant” was truly qualified to run these tests, Dr. Wesel did not bother to look into where the “consultant” performed the tests, *id.*, 50:21-51:5, and did not “inspect the precise setup the consultant used to perform the [test] runs,” *id.*, 51:11-17, 51:21-23. Nor did Dr. Wesel take *any* steps to ensure that the “consultant” maintained the settings properly throughout the testing procedures:

Q. Beyond giving him the instructions, did you take any steps to ensure that the consultant maintained the settings properly throughout the testing procedures?

A. *I’m not sure exactly what you wanted me to do. I mean, I trusted the consultant to follow my directions.*

Id., 89:13-24.

As to the results of Dr. Wesel’s testing, Dr. Wesel admitted during his deposition that the unnamed, and plainly inexperienced, “consultant” compiled all of the test results in Appendix C to his Report, that he did nothing to check the accuracy of those numbers in most cases, and that he could not “recall” which of the “few cases” he even bothered to “check[]”:

Q. ... Did you yourself use these Batterystats files in order to generate your Appendix C?

THE WITNESS: I used the results from the Batterystats files.

Q. Is that something that you compiled yourself or did the consultant do that?

THE WITNESS: *I asked the consultants to compile those results.*

Q. *Did you do anything to check to see whether the consultants had accurately compiled the numbers* from these Batterystats files into your Appendix C?

A. Yeah, *I checked a few cases.* And everything matches up.

Q. *Which cases did you check?*

A. *I don't recall.*

Ex. 3 at 286:18-287:12 (objections omitted).

Beyond performing nearly all of the alleged testing described in Dr. Wesel's Report, the same unnamed "consultant" also controlled the entire test setup. For example, Dr. Wesel admitted that the "consultant" purchased the phones used for his testing, Ex. 2 at 40:19-41:17, 52:1-13, 55:1-3, 88:8-13, "create[d] the Google account for the device," "download[ed] the applications onto the device," and "purchased and enabled" the "cellular plan from AT&T[.]"³ *Id.*, 48:1-25.

2. Dr. Wesel's Battery Testing Opinions Should Be Stricken

Dr. Wesel's opinions on the "battery testing" described in his Report are unreliable and warrant exclusion. He had no experience with such tests or the testing software, was not involved in the test setup, did not perform the majority of the tests himself, and did not compile or check the results of the alleged testing. And to the extent he was involved in two of the eight S5/S21 test runs, his involvement was limited to plugging an S5 into a computer and entering "commands into the command prompt to operate the Batterystats tool." Ex. 2 at 49:6-12. Given that Dr. Wesel had admittedly never worked with Android code or the test software used, *id.*, 38:19-39:2, it is clear that he was simply fed the "commands" to enter. His opinions should be stricken for this reason alone. *See Callaway Golf Co. v. Acushnet Co.*, No. CIV. 06-91-SLR, 2007 WL 4165401, at *1 (D. Del. Nov. 20, 2007) (excluding test opinions where expert "neither prepared nor tested anything" and party "directed every aspect of these tests"); *Rosco, Inc. v. Mirror Lite Co.*, 506 F. Supp. 2d 137, 147 (E.D.N.Y. 2007) (striking test results where expert "ha[d] no experience in CMM testing and interpretation," "did not observe or participate in the CMM testing," and had

³ Dr. Wesel could not describe *any* details of the AT&T cellular plan he used. Ex. 2 at 90:19-24.

never “interpreted CMM test results” or “commissioned or seen a CMM test performed”).

Additionally, the “consultant”—whose name, employer, degree, and experience Dr. Wesel knew absolutely nothing about during his deposition—lacked the experience and qualifications needed to perform the at-issue testing and compile the at-issue test results. What Dr. Wesel *did* know about the “consultant” is noteworthy—he had never done battery testing before. Further, this “consultant” was not mentioned in Dr. Wesel’s Report, was not included in Dr. Wesel’s “Materials Considered,” and was not identified by Headwater or made available for deposition. The prejudice is clear: Samsung could not question the individual *who actually performed the tests in Dr. Wesel’s Report* about his qualifications, the test setup and location (apparently somewhere in Los Angeles—where Headwater’s counsel is located—with poor signal strength), or the test results. Headwater’s attempt to launder this “consultant’s” findings through Dr. Wesel should be rejected and the corresponding opinions stricken from Dr. Wesel’s Report. *Therasense*, 2008 WL 2323856, at *3 (excluding “testimony and opinions about . . . tests” where expert did not “observe[] or supervise” individual that performed the test, and where plaintiff did not “permit defendants to question” the individual “who did conduct and participate in the experiments”).

B. Dr. Wesel’s Test Setup Was Substantively Flawed

1. Dr. Wesel Failed to Take Into Account Known Factors that Would Materially Impact the Rate of Battery Drain in His Testing

Given that Dr. Wesel had never before performed a battery drain test (and did not perform the majority of the test runs in this case), it is no surprise that the testing failed to take into account factors that, by his own admission, materially impact the rate of battery drain of the tested devices.

First, Dr. Wesel “tested” a Galaxy S5, a phone released back in 2014. Ex. 1, ¶ 2362. Despite Dr. Wesel admitting in deposition that “a mobile phone’s battery performance degrade[s] over time,” Ex. 2 at 57:21-24, Dr. Wesel’s Report never indicates whether the battery used in the

10-year old S5 is new or refurbished, something that could significantly impact his “battery test.” *See generally* Ex. 1, § XIII.B. And while Dr. Wesel unequivocally stated in deposition that the battery was “new,” he could not explain how he knew that, simply stating: “I could just tell.” Ex. 2 at 53:5-54:25 (“Q. Sitting here today, *you’re not able to tell me how you understood that the battery in the S5 you used for testing was new?* Is that correct? A. *That’s correct.*”).⁴

Second, Dr. Wesel admitted in deposition that the phone’s signal strength could impact “power consumption for the cellular modem”—the metric he sought to test. Ex. 2 at 73:2-20. Yet, his testing failed to account for “signal strength.” *Id.*, 76:1-8. Dr. Wesel assumed a strong signal for his tests based on a misunderstanding that cellular coverage throughout Los Angeles was excellent. Ex. 2 at 75:16-76:12. Not only did Dr. Wesel undermine his and the “consultant’s” testing by failing to measure something he admitted would affect the test results, but he was confronted at deposition with the fact that his own data—apparently unbeknownst to Dr. Wesel—shows that during the majority of his testing, “signal strength” was “poor.” Ex. 3 at 284:8-285:18.

Finally, Dr. Wesel admitted during his deposition that “temperature is a factor in battery performance” and that “when a battery is warmer, it can be less efficient.” Ex. 2 at 95:5-18. Moreover, Dr. Wesel conceded that even though “keeping the screen on[,] on your phone for an hour increase[s] the temperature of the device,” *id.*, 95:2-4, “the screen was kept on during the entire test” that he ran, *id.*, 94:17-95:1. In other words, Dr. Wesel intentionally caused the tested device to increase in temperature, which would make the battery less efficient, when running his “battery tests.” *Id.* None of this is taken into account in Dr. Wesel’s Report.

2. Dr. Wesel Repeatedly Deviated From the [REDACTED] [REDACTED] He Purported to Rely On

⁴ It is highly unlikely that the tested battery was new, as the website Dr. Wesel’s “consultant” bought it from states that new batteries for the S5 are “sold out” and only guarantees that batteries have “85% of their original capacity,” which Dr. Wesel’s testing did not address. Exs. 4-5.

Dr. Wesel's Report states that his testing was "based on a [REDACTED]," which itself "is [REDACTED] [REDACTED]." Ex. 1, ¶¶ 2363, 2365. However, during his deposition, Dr. Wesel was repeatedly confronted with his testing's deviations from the [REDACTED] (which is not even relevant for phones [REDACTED]). For example, Dr. Wesel admitted that he failed to download the same applications described in the [REDACTED]. Ex. 2 at 81:23-82:2, 85:7-10. Dr. Wesel turned the device's Wi-Fi off despite the [REDACTED]. *Id.*, 83:24-84:15. Dr. Wesel turned Power Saving Mode (i.e., battery saving) on despite the [REDACTED]. *Id.*, 86:17-87:5. The [REDACTED] *id.*, 93:1-6, but Dr. Wesel's testing did not, *id.*, 76:1-8. Finally, while the [REDACTED], Dr. Wesel tested the Galaxy S5 for just one-hour and multiplied it by a factor of nine, Ex. 1, ¶ 2368, because he could not be bothered to run his test for a nine-hour period or a day, Ex. 2 at 105:9-13.

C. Dr. Wesel Inappropriately Projects the Results of his “Battery Testing” from One Phone and One Feature to Dozens of Distinct Phones and Features

Dr. Wesel applied his highly unreliable “test results for the S5 . . . to each of the accused products” simply by dividing the alleged battery savings “by the appropriate battery capacity.” Ex. 1, ¶¶ 2368-70. This is insufficient, unscientific, and unreliable for a number of reasons.

First, Dr. Wesel admits that the Battystats tool used to perform his testing “relies on the [REDACTED] that exists on the accused devices which indicates [REDACTED] [REDACTED] Ex. 3 at 288:20-289:12. And he admits that [REDACTED] [REDACTED] *Id.*, 289:23-25. Despite this, he only “used [REDACTED] for the model” that he tested (which was a decade old), *id.*, 289:14-21, and did not “take into account the differences in [REDACTED] that would exist on the additional models as compared to the S5”

when he “applied the test results for the S5 to each of the Accused Products,” *id.*, 292:15-24. In other words, the software Dr. Wesel used to perform his testing required a [REDACTED] unique to the tested device, and despite the fact that the [REDACTED] would be different across devices, Dr. Wesel projected the test results for an older and less efficient S5 to every other (newer) Accused Product without taking their [REDACTED] into account. This skewed his results.

Second, Dr. Wesel admits that different Accused Products have different cellular modems and that different cellular modems would drain batteries at different rates. *Id.*, 293:2-9. Yet, Dr. Wesel failed to account for the different rates at which the various Accused Products’ cellular modems drain battery (and the fact that newer phones are more efficient) when projecting the results for the S5 (a 10-year old device) to other newer devices.

Finally, Dr. Wesel used the same [REDACTED] “across all of the tests,” despite the fact that “there would have been a number of updates” to the [REDACTED] over time. Ex. 2 at 67:16-68:5. Dr. Wesel’s testing failed to take into account differences in the [REDACTED] that would have existed when phones other than the tested S5 would have been released. *Id.*

Dr. Wesel also failed to account for differences in how the accused features operate before projecting any alleged battery saving benefits of one feature to another. For example, despite only testing the *Power Saving Mode* feature, Dr. Wesel states that his “battery testing results also indicate the battery savings provided by . . . the *Doze and App Standby / Adaptive Battery features*,” as well as *Data Saver*. Ex. 1, ¶¶ 2372-78. Dr. Wesel simply did not test any of these other accused features, and there is no dispute that all of these features have different triggers that would cause them to block network access at different times/rates. *See generally id.*, §§ II, XIII.B.

III. CONCLUSION

For the foregoing reasons, Samsung respectfully asks that the Court grant its motion and strike paragraphs 2362-81 and Appendix C of Dr. Wesel’s Report relating to “battery testing.”

Dated: June 7, 2024

Respectfully submitted,

By: /s/ Jared Hartzman

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing document was served on Plaintiff through its counsel of record via email on June 7, 2024.

/s/ Jared Hartzman
Jared Hartzman

CERTIFICATE OF CONFERENCE

The undersigned hereby certifies that counsel for Defendants have complied with the meet and confer requirement in Local Rule CV-7(h). This motion is opposed. The personal conference required by Local Rule CV-7(h) was conducted on May 9, 2024. The parties were unable to reach agreement as to Samsung's requested relief.

/s/ Jared Hartzman
Jared Hartzman

CERTIFICATE OF AUTHORIZATION TO SEAL

The undersigned hereby certifies that pursuant to the protective order in the above-captioned case, this document contains confidential information. Accordingly, this document is to be filed under seal.

/s/ Jared Hartzman
Jared Hartzman